Online Examinations (Odd Sem/Part-I/Part-II Examinations 2021 - 2022)

Course Name - –Modern Radiological &Imaging Equipment
Course Code - BMRIT304

* You can submit the form ONLY ONCE.
* Fill the following information for further process.

* Required

1. Email *

2. Enter an E-mail ID to Get Acknowledgement of Exam Submission *

3. Name of the Student *

4. Enter Full Student Code *

5. Enter Roll No *

6. Enter Registration No *

7. Enter Course Code *

8. Enter Course Name *

9. Select Programme Name *

Mark only one oval.

- Diploma in Pharmacy
- Diploma CSE
- Diploma ECE
- Diploma ME
- Diploma CE
- Diploma EE
- Diploma MLT
- B.TECH.(CSE)-AIML
- B.TECH.(CSE)-DS
- B.TECH.(CSE)
- B.TECH.(ECE)
- B.SC.(IT)-AI
- BCA
- B.SC.(CS)
- B.SC.(BT)
- B.SC.(MB)
- B.SC.(ANCS)
- B.SC.(Agriculture)
- B.Sc.(AM)
- B.Sc.(MM)
- B.Sc.(MW)
- B.SC.(MSJ)
- B.SC.(JMC)
- BBA
- B.Com.(BF)
- B.Com.(BFA)
- BBA(HM)
- BBA(DM)
- BBA(LLB)
- LLB

- B.Optometry
- B.Sc.(CCT)
- B.Sc.(OTT)
- B.SC.(MLT)
- B.SC.(MRIT)
- B.SC.(PA)
- B.Physiotheraphy
- Bachelor in Pharmacy
- M.TECH(CSE)
- M.SC.(ANCS)
- M.SC.(AM)
- M.SC.(BT)
- M.SC.(MB)
- M.Sc(MSJ)
- M.A.(ENG)
- M.SC.(MATH)
- LLM
- MBA
- MCA

Answer all the questions. Each question carry one mark.

10. 1. The X-ray tube use in portable machine is

Mark only one oval.

- Self-rectified
- Full-wave rectified
- Half-wave rectified
- None of these

11. 2. The anode use in portable X-ray tube is

Mark only one oval.

- Rotating anode
- Stationary anode
- Both
- None of these

12. 3. Actual focal spot size of portable X-ray tube is

Mark only one oval.

- 0.5mm
- 1.0mm
- 1.5mm
- 2mm

13. 4. Tube and generator of portable X-ray unit are enclosed in

Mark only one oval.

- Water filled tank
- Oil filled tank
- Helium filled tank
- None of these

14. 5. Fine spot size of mobile X-ray tube anode is

Mark only one oval.

- 1.0mm
- 2.0mm
- 0.5mm
- 0.25mm

15. 6. Broad spot size of mobile X-ray tube anode is

Mark only one oval.

- 1.0mm
- 1.5mm
- 0.5mm
- 2mm

16. 7. What is the maximum output of high power mobile X-ray

Mark only one oval.

- 300 mA, 125KVp
- 200 mA, 125KVp
- 100 mA, 90KVp
- 100 mA, 100KVp

17. 8. Rectifier used in mobile X-ray tube is

Mark only one oval.

- Self-rectifier
- Full-wave rectifier
- Half-wave rectifier
- None of these

18. 9. As mAs increases

Mark only one oval.

- Exposure time decreases
- Exposure time will not change
- Exposure time increases
- None of these

19. 10. The mammography X-Ray tube produce

Mark only one oval.

- Bremsstrahlung radiation
- Characteristic radiation
- Both
- None of these

20. 11. The source to image distance is used in mammography

Mark only one oval.

- 60-80 cm
- 100 cm
- 50-55 cm
- 80 cm

21. 12. The function of amorphous selenium photoconductor in digital mammography is

Mark only one oval.

- X-ray into light
- Light into digital signal
- X-ray into digital signal
- All

22. 13. Molybdenum is the most common filter material in mammographic system. It is used because it produces:

Mark only one oval.

- Characteristic radiation.
- Increased breast penetration.
- High absorption above the K-edge energy.
- High absorption below the K-edge energy.

23. 14. Digital mammography is computer-based. How does it compare to a standard X-Ray mammography?

Mark only one oval.

- More accurate
- Spots smaller tumors
- Performs about the same as X-Ray
- Is less accurate

24. 15. What does CR mean?

Mark only one oval.

- Computed Tomography
- Computerized Radiography
- Computed Radiography
- Computer Radiography

25. 16. What is a scintillator?

Mark only one oval.

- Absorbs light and converts energy to x-rays
- Absorbs light and converts to light
- Absorbs x-rays and converts energy to light
- Absorbs x-rays and converts to carbon

26. 17. The PSP material mostly used in CR is

Mark only one oval.

- CsI
- NaI
- a-Se
- BaFX:Eu2+

27. 18. What is a PSP?

Mark only one oval.

- Photodiode Stimulator
- Photostimulable x-ray table
- Photodiode Phosphor plate
- Photostimulable Phosphor Plate

28. 19. In DR, where are the electrical charges stored?

Mark only one oval.

- Thin Plate Transistors TPTs
- Titanium Film Transistors TFTs
- Thin Film Transistors TFTs
- Thin Photodiode Transistors TPTs

29. 20. A patient undergoes two AP radiographic examinations of the abdomen on the same high frequency X-ray unit. The settings are: (1) 85 kV, 350 mA and 0.2s; (2) 85 kV, 600 mA and 0.15s. The entrance skin dose of examination (2) relative to that of the first examination is about:

Mark only one oval.

- 30% less.
- 10% less.
- 10% greater.
- 30% greater.

30. 21. Pulsed fluoroscopy is generally used to:

Mark only one oval.

- Reduce motion blur.
- Reduce patient dose.
- Reduce the effective focal spot size.
- Increase kVp stabilization.

31. 22. An 8:1 grid is replaced with a 12:1 grid. This will have the effect of:

Mark only one oval.

- Increasing contrast and patient radiation dose.
- Increasing contrast with no change in patient radiation dose
- Increasing contrast and reducing patient radiation dose.
- Decreasing contrast and patient radiation dose.

32. 23. In digital subtraction angiography (DSA), video cameras are generally used in the progressive scan mode. This implies:

Mark only one oval.

- ◯ Repeated scanning of the same video image to improve signal-to-noise ratio.
- ◯ Scanning adjacent raster lines sequentially after termination of the X-ray exposure.
- ◯ Scanning the video camera target at appropriate intervals during the X-ray exposure.
- ◯ Use of a double interlaced vidicon beam.

33. 24. What does Digital Imaging require?

Mark only one oval.

- ◯ Hardware & Software applications to process images
- ◯ Systematic application of highly complex mathematical formulas called Algorithms
- ◯ Film
- ◯ Both (Hardware & Software applications to process images) and (Systematic application of highly complex mathematical formulas called Algorithms)

34. 25. Contrast can be modified in

Mark only one oval.

- ◯ Conventional radiography
- ◯ Fluoroscopy
- ◯ None
- ◯ Digital radiography

35. 26. Computed Tomography (CT) results in a/an

Mark only one oval.

- Analog image
- Linear image
- Digital image
- Image in time

36. 27. The principal advantage of CT over projection radiography is

Mark only one oval.

- Speed of image acquisition
- Energy resolution
- Contrast resolution
- Spatial resolution

37. 28. Which of the following terms does not fit?

Mark only one oval.

- Section
- Slice
- Tomos
- Volume

38. 29. Computed tomography is otherwise identified as

Mark only one oval.

- Emission tomography
- Transmission tomography
- Reflection tomography
- Volumetric tomography

39. 30. Which of the following involves emission of a signal from a patient?

Mark only one oval.

- CT
- Diagnostic ultrasound
- Magnetic resonance imaging
- Projection radiography

40. 31. The data acquisition in CT results in a/an

Mark only one oval.

- Oblique image
- Transverse image
- Sagittal image
- Coronal image

41. 32. Which of the following scientists received the nobel prize for their work leading to CT? 1. Alan Cormack 2. Raymond Damadian 3. Geodfrey Hounsfield 4. Paul Lauterbur

Mark only one oval.

- Only 1,2 and 3 are correct
- Only 1 and 3 are correct
- Only 2 and 3 are correct
- Only 4 is correct

42. 33. Which of the following are characteristic limitations of CT? 1. Spatial resolution 2. Artifact generation 3. Z-axis resolution 4. patient dose

Mark only one oval.

- Only 1, 2, and 3 are correct
- Only 1 and 3 are correct
- Only 2 and 4 are correct
- Only 4 is correct

43. 34. The mathematics of back projection applied to image reconstruction in CT is credited to:

Mark only one oval.

- Alan cormack
- Raymond Damadian
- Geofrey Hounsfield
- Frank Lauterbur

44. 35. The term "projection" when applied to CT, refers to

Mark only one oval.

- Speed of image acquisition
- A data set representing x-ray attenuation in the patient
- The size of the x-ray beam projected on the patient
- The shape of the x-ray beam projected on the patient

45. 36. Which of the following image modalities are likely to have lsess scatter radiation affecting the image?

Mark only one oval.

- Fluoroscopy
- Projection of radiography
- Conventional tomography
- CT

46. 37. The first CT image was demonstrated by

Mark only one oval.

- Alan Cormack
- Raymond Damadian
- Geodfrey Hounsfield
- Frank Lauterbur

47. 38. Image presentation in conventional tomography is

Mark only one oval.

- Axial
- Coronal
- Sagittal
- Volumetric

48. 39. Compared to projection radiography, conventional tomography results in improved contrast resolution because

Mark only one oval.

- Imaging time is reduced
- Out of plane tissues are blurred
- The x-ray beam is selectively filtered
- All of these

49. 40. CT stands for

Mark only one oval.

- Controlled tomography
- Computed tomography
- Converted tomography
- Comparison tomography

50. 41. ECT stands for

Mark only one oval.

- Electro cardio tomography
- Electro capacitive tomography
- Electro converging tomography
- Electro Cornial tomography

51. 42. Which of the following is not possible?

Mark only one oval.

- ECT
- ERT
- Fibre optic tomography
- None of the mentioned

52. 43. The substratum layer or binding layer is made-up

Mark only one oval.

- Silver bromide crystals
- Gelatin plus acetone and water
- Gelatin
- None of these

53. 44. Which is not true film latitude?

Mark only one oval.

- Is range of exposures to produce useful range of densities
- Normal latitude of film screen is 40:1
- Film latitude and gamma are directly related
- High film latitude requires for chest X-rays

54. 45. Digital radiography categorized into ..... type?

Mark only one oval.

- 2
- 3
- 4
- 5

55. 46. Venography is the study of

Mark only one oval.

- Vein
- Artery
- All
- None

56. 47. Lower extremity angiography refers to which part of the body

Mark only one oval.

- Leg
- Hand
- Abdomen
- None

57. 48. Upper extremity angiography refers to which part of the body

Mark only one oval.

- Hand
- Leg
- Abdomen
- All

58. 49. Rare earth screen are all except of the following

Mark only one oval.

- Lanthanum oxybromide
- Lanthanum oxysulphide
- Calcium tungstate
- Gadolinium oxysulphide

59. 50. Which of the following phosphor not used in intensifying screen

Mark only one oval.

- Calcium tungstate
- Zinc cadmium sulfide
- Terbium
- Thulium blue

60. 51. Single screen cassettes are used in

Mark only one oval.

- Mammography
- Angiography
- Orthodontic radiography
- Ultrasound

61. 52. What is sandwiched between intensifying screens in the x-ray cassette?

Mark only one oval.

- Beam restrictor
- Filter
- Film
- Compressive material

62. 53. Closest to x-ray film. 10-20 um thick

Mark only one oval.

- Phosphor layer
- Base
- Reflexive layer
- Protective layer

63. 54. In IVU, scout film is taken

Mark only one oval.

- To check the exposure factors
- To check bowel preparation
- To see any calculus
- All of these

64. 55. In IVU, what is the name of radiograph which is taken after 5 minutes of injection of contrast media?

Mark only one oval.

- Nephrogram
- Ureterogram
- Pyelogram
- Full film

65. 56. 1 F = _____

Mark only one oval.

- 0.0131 inch
- 0.254 inch
- 0.314 inch
- 0.894 inch

66. 57. Normal liver shows

Mark only one oval.

- Increased T1 signal
- Increased T2 signal
- Decreased T1 signal
- Decreased T2 signal

67. 58. Biliary contrast media are

Mark only one oval.

- Monoiodobenzoic acid derivatives
- Triiodobenzoic acid derivatives
- Iodic acid derivativies
- Barium derivatives

68. 59. ASP stands for

Mark only one oval.

- Application service provider
- Application specialist panel
- None
- All of these

69. 60. RIS stands for

Mark only one oval.

- Radiology imaging system
- Radiology information system
- Radiological imaging system
- None of these